

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL		97-032
<u>INSTRUCTIONS</u>		
<ol style="list-style-type: none"> 1. The preparing activity must complete blocks 1,2, 3, and 8. In block 1, both the document number and revision letter should be given. 2. The submitter of this form must complete blocks 4, 5, 6, and 7. 3. The preparing activity must provide a reply within 30 days from receipt of the form. <p>NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.</p>		
I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER	2. DOCUMENT DATE (YYMMDD) 970207
3. DOCUMENT TITLE Tag Registry		
4. NATURE OF CHANGE <i>(Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)</i> Reserve CMPLXA for data relating to Complex SAR imagery. See attached.		
5. REASON FOR RECOMMENDATION The capability to output Complex Imagery in NITF format from airborne SAR sensors is being developed. The attached page is a prototype for an extension providing data required to support this effort, but may change as more experience is gained. Intent is to transition to a Controlled Extension after implementation and testing .		
6. SUBMITTER		
a. NAME <i>(Last, First, Middle Initial)</i> Muchnij, Joseph	b. ORGANIZATION SAIC	
c. ADDRESS <i>(Include Zip Code)</i> 4031 Col. Glenn Highway Dayton, OH 45431-1673	d. TELEPHONE <i>(Include Area Code)</i> (1) Commercial (937) 431-4392 (2) AUTOVON <i>(If applicable)</i>	7. DATE SUBMITTED <i>(YYMMDD)</i> 970925
8. PREPARING ACTIVITY National Imagery and Mapping Agency		
a. NAME Danny Rajan	b. TELEPHONE <i>(Include Area Code)</i> (1) Commercial (301) 227-3696 (2) AUTOVON	
c. ADDRESS <i>(Include Zip Code)</i> SESR 4600 Sangamore Road Bethesda, MD 20816-5003	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466 Telephone (703) 756-2340 AUTOVON 289-2340	

(TYPE "R" = Required, "C" = Conditional, "<" = null data allowed)

FIELD	NAME	SIZE	VALUE RANGE	UNITS	TYPE
CETAG	Unique Extension Identifier	6	CMPLXA	n/a	R
CEL	Length of Entire Tagged Record	5	00014	Bytes	R
<i>The following fields define CMPLXA</i>					
CMPLX_DOMAIN	<u>Complex Domain</u> defines whether the two components form a rectangular (IQ), or a polar (MP) coordinate system, and which components are present in this image. Operational and efficiency considerations may dictate that the magnitude and phase components be contained in separate files, with M or P defining the content of this image.	2	IQ,MP, M,P		R
CMPLX_DATA_FMT	<u>Complex Data Format</u> indicates the format of each component value comprising a complex pixel: I=Integer F=Floating Point	1	I,F		R
CMPLX_SCALE	<u>Type of Scaling</u> applied to pixel component values: LINM = Linear Magnitude LINP = Linear Power LLM = Lin/Log Magnitude LLP = Lin/Log Power LOGM = Log Magnitude LOGP = Log Power	4	LINM, LINP, LLM, LLP, LOGM, LOGP		R
CMPLX_WEIGHT	<u>Type of Weighting</u> applied to data: T35 = Tailor 35db SVA = Spatially Variant Apodization spaces = Unweighted	3	T35,SVA, spaces		<R>
<p>When the Complex Domain field contains IQ, both CMPLX_SIZE_1 AND CMPLX_SIZE_2 shall contain identical values; 32 for floating point data, and either 08 or 16 for integer data.</p> <p>When the Complex Domain field contains MP, CMPLX_SIZE_1 shall contain 32 for floating point data, or 08 for integer data, and CMPLX_SIZE_2 shall contain 32 for floating point data, and 08, 10, 12, or 16 for integer data.</p> <p>When the Complex Domain field contains M, CMPLX_SIZE_1 shall contain 32 for floating point data, or 08 for integer data, and CMPLX_SIZE_2 shall contain 00</p>					
CMPLX_SIZE_1	Size of 1st (or only) pixel component in bits; the In-phase or Magnitude component when the Complex Domain contains IQ, MP, or M; the Phase component when the Complex Domain contains P.	2	08,16, or 32	bits	R
CMPLX_SIZE_2	Size of 2nd pixel component in bits when the Complex Domain indicates IQ or MP. The 2nd component is the Quadrature or Phase component. Shall be 00	2	00,08, 10, 12, 16, or 32	bits	<R>